

What is claimed is:

1. A bolt having:

a regularly threaded part provided with a regular external thread capable of being regularly engaged with an internal thread formed in a mating nut; and

a cylindrical guide part having a diameter smaller than a minor diameter of the internal thread of the mating nut and contiguous with the regularly threaded part;

wherein the cylindrical guide part is provided with a recess in its end surface.

2. The bolt according to claim 1, wherein the recess is formed by axially cutting an end part of the cylindrical guide part.

3. The bolt according to claim 1, wherein longitudinal grooves are formed in a circumference of the cylindrical guide part.

4. The bolt according to claim 1, wherein the regularly threaded part is provided with grooves having a length corresponding to at least one screw thread of the regular external thread and formed in a portion thereof contiguous with the cylindrical guide part.

5. The bolt according to claim 4, wherein the grooves are formed in a length corresponding to one to three screw threads of the regular external thread in a portion of the regularly threaded part contiguous with the cylindrical guide part.

6. A nut provided with a threaded bore having an internal thread that can be engaged with an external thread of a mating externally threaded member;

wherein the threaded bore has a leading part that is engaged first with the external thread of the mating externally threaded member, provided with a plurality of recesses having a length equal to at least one pitch of the internal thread and arranged at equal angular intervals, and a regularly threaded part capable of being engaged with the external thread of the mating externally threaded member and continuous with the leading part.

7. The nut according to claim 6, wherein a sum of circumferential lengths of the recesses is not shorter than half a circumferential length of the regularly threaded part.

8. The nut according to claim 6, wherein a radial depth of the recesses is in the range of a value equal to a height of the internal thread of the regularly threaded part and a value twice the height of the internal thread of the regularly threaded part.

9. The nut according to claim 6, wherein an axial length of the recesses formed in the leading section of the threaded bore is equal to one to two pitches of the internal thread.

10. A bolt having:

a head against which a fastening tool is pressed to screw the bolt in a threaded bore of a mating nut provided with an internal thread;

a cylindrical guide part of a diameter smaller than a minor diameter of the internal thread of the nut;

a regularly threaded part that engages regularly with the internal thread of the nut; and

a threaded guide part formed between the cylindrical guide part and the regularly threaded part, provided with an external thread having rounded crests and having a major diameter greater than the diameter of the cylindrical guide part and smaller than a major diameter of the external thread of the regularly threaded part.

11. The bolt according to claim 10, wherein the external thread of the threaded guide part is the same in pitch and lead angle as that of the regularly threaded part.

12. The bolt according to claim 10, wherein the external thread of the threaded guide part has a screw thread form that can be included in a screw thread form of the external thread of the regularly threaded part when the former is superposed on the latter.

13. The major diameter of the external thread of the threaded guide part at a position on the axis nearer to the head of the bolt is greater than that of the same at a position

09047833-021200

on the axis nearer to the extremity of the bolt, and the external thread of the threaded guide part has at least two major diameters.

14. The bolt according to claim 10, wherein the external thread of the threaded guide part has a single major diameter.

15. The bolt according to claim 10, wherein a radius of curvature of rounded crests of the external thread of the threaded guide part in a screw thread form is in the range of 20% to 60% of the pitch..

16.. The bolt according to claim 10, an edge of an end surface of the cylindrical guide part is rounded in a radius of curvature equal to 50% of the pitch or above.

~~Suba~~ 17. A self-locking bolt having:

a head having a locking function; and

a threaded part extending from the head and provided with an external thread of a pitch P;

wherein n locking projections are formed at equal angular intervals on a bearing surface of the head, the height of each locking projection from the bearing surface of the head increases gradually in a direction opposite a fastening direction in which the bolt is rotated for fastening to a maximum height, an edge is formed in a highest portion of the locking projection at the maximum height, and the maximum height of the edge of the locking projection from the bearing surface of the head is nearly equal to and less than P/n .

~~Sub a,~~ 18. A self-locking bolt having:

a head having a locking function; and

a threaded part extending from the head and provided with an external thread of a pitch P;

wherein n locking recesses are formed at equal angular intervals in a bearing surface of the head, the depth of each locking recess from the bearing surface of the head decreases gradually in a direction opposite a fastening direction in which the bolt is rotated for fastening to a minimum depth, and an edge is formed at the joint of an end wall of the locking recess at a position at a maximum depth and the bearing surface

G E N E R A L I S M U S

of the head.

19. The self-locking bolt according to claim 17, wherein the locking projections are formed in a peripheral region of the bearing surface of the head.

20. The self-locking bolt according to claim 18, wherein the locking recesses are formed in a peripheral region of the bearing surface of the head.

21. The self-locking bolt according to claim 17, wherein the locking projections extend from a circumference of the head to the threaded part.

22. The self-locking bolt according to claim 18, wherein the locking recesses extend from a circumference of the head to the threaded part.

All A1 >